Remarks

The Abstract stands objected to and the Applicants note with appreciation the Examiner's helpful comments. The Abstract has accordingly been replaced with a new Abstract that refers to both the method and computer equipment. Entry into the official file is respectfully requested. Withdrawal of the objection is also respectfully requested.

Claims 3-5, 9 and 11 stand rejected under 35 U.S.C. §112 as being indefinite. The Applicants respectfully submit that the rejection is now moot in view of the cancellation of all of Claims 3-5, 9 and 11.

Claims 7-9 and 14 stand rejected under 35 U.S.C. §103. The Applicants respectfully submit that the rejection is now moot in view of the cancellation of those claims.

Claims 1-14 stand rejected under 35 U.S.C. §102 as being anticipated by Haskell. The Applicants respectfully submit that the rejection is now moot in view of the cancellation of Claims 1-14.

The Applicants have added new Claims 15-30. A number of the new Claims are at least loosely based on a number of the original claims. For example, Claims 18-26 are based on Claims 5 and 8-14, respectively. Also, Claim 15 contains components of original Claim 1. However, there is additional subject matter which is supported in various locations throughout the Applicants' Specification. For example, the language "for displaying a scene comprising MPEG-4 objects" may be found in paragraph [0003]. Also, the language supplementing the discussion of the peripheral command device delivering digital signals of user interactions as a function of actions of one or more users on the scene may be found in paragraph [0025], for example. Also, the language which recites that the node specifies an association between the digital signals of user interactions and the scene objects may be found in paragraph [0024]. Finally, the language that recites that the at least one field defines at least one action to be applied to the scene with a parameter field, the value of which corresponds to a variable of the digital signals received from the peripheral command device may be found in paragraph [0017], for example.

Support for claims 16 and 17 may be found in paragraph [0018]. Support for Claim 27 may be found in paragraphs [0024] and [0030]. Support for Claims 28 and 29 may be found in paragraph [0020]. Support for Claim 30 may be found in paragraphs [0016] and [0027].

Finally, Claim 26 has some additional language that is also supported by paragraphs [0003], [0017], [0024] and [0025].

Entry of new Claims 15-30 into the official file and consideration on the merits is respectfully requested.

The Applicants respectfully submit that the newly solicited claims are also patentable over Haskell. In that regard, Haskell discloses a system and method to display and interact with MPEG-4 multimedia content. The Haskell mechanisms display a multimedia scene made of MPEG-4 objects and are common mechanisms based on a BIFS scene descriptive graph, a BIFS graph interpreter, a MPEG-4 component decoder and a device for composing and displaying the scene. Several interaction mechanisms between the user and the multimedia scene are disclosed in Haskell. The interaction is reached by altering the BIFS scene description graph, modifying the position of any object, adding/deleting an object, provided in paragraphs [0075] and [0078].

The different mechanisms of Haskell are:

the user can interact with the scene in response to control signals such as a mouse signal, a trackball signal provided in paragraph [0037]. The signal enables a direct interaction with the browser and the MPEG demultiplexer provided in paragraph [0046]. These interactions can be processed by an AAVS module to, e.g., update the scenes within the BIFS browser and the MPEG demultiplexer provided in paragraph [0065];

the BIFS graph can include "canned" extension nodes that modify some aspects of a known node by programming its behavior provided in paragraph [0051];

the BIFS graph can also include "Script" extension nodes that enable local behavior programming of the nodes within the graph provided in paragraphs [0059] through [0061];

a user interaction locally in the application is realized by use of scripts to interact with the BIFS browser and the MPEG demultiplexer or with the graph interpreter provided in paragraphs [0053], [0063] and [0070]. Regarding the definition of "interpreter" provided in paragraph [0054], this interaction appears to be a modification of the way the interpreter understands the graph and invokes the MPEG-4-component decoders;

a global user interaction consist of programming the scene behavior provided in paragraph [0068] by use of AAVS-type external scripts lately processed by an AAVS module. The latter can directly impact the control data and information. The scripts of Haskell are of the type of JavaScript or Java provided in paragraphs [0080 and 0084].

In any event, whatever mechanism is used, Haskell only suggests that control instructions (signals or scripts) enable modification of the scene objects (e.g., a modification of the graph and a scene update). Haskell does not teach or suggest the deeper mechanisms (i.e., how the canned or script nodes work, to process from these interaction instructions to the scene modifications.

In sharp contrast, the Applicants' new claims recite the use of a BIFS node specifying the association between the user interaction signal and the scene elements (as disclosed in paragraph [0024], for example.

This avoids the use of large resources such as the requirements of Java (AAVS or MPEG-J). Paragraph [0006] of Haskell specifies those drawbacks. It also avoids an interoperability problem between pointer (mouse) interactions (considered as "local" interactions by Haskell) and other type interactions (e.g., "global" interactions according to Haskell --- see paragraph [0007] specifying this problem). Indeed, according to Haskell, different mechanisms are used to deal with local interactions (use of scripts --- Haskell paragraphs [0053], [0063] and [0070]) and global interactions (AAVS-type external scripts --- Haskell paragraphs [0064], [0080] and [0084]).

The Applicants respectfully submit that the above differences set forth with respect to Haskell are such that Haskell fails to disclose each and every claimed aspect of the subject matter recited in Claims 1-30. the Applicants respectfully submit that Claims 1-30 are allowable over Haskell.

In light of the foregoing, the Applicants respectfully submit that the entire Application is now in condition for allowance, which is respectfully requested.

Respectfully submitted,

T. Daniel Christenbury
Reg. No. 31,750
Attorney for Applicants

TDC/vbm
(215) 656-3381

In the Abstract

On page 14, please delete the Abstract in its entirety and substitute with the following:

~~A method for managing interactions between at least one peripheral command device and at least one multimedia application exploiting the standard MPEG-4. A peripheral command device delivers digital signals as a function of actions of one or more users comprising: constructing a digital sequence having the form of a BIFS node (BInary Form for Scenes in accordance with the standard MPEG-4), a node comprising at least one field defining a type and a number of interaction data to be applied to objects of a scene.~~

A method for managing interactions between at least one peripheral command device and at least one multimedia application exploiting the standard MPEG-4, the peripheral command device delivering digital signals as a function of actions of one or more users including constructing a digital sequence having the form of a BIFS node, the node including at least one field defining a type and number of interaction data to be applied to objects of a scene. Computer equipment including a calculator for executing a multimedia application exploiting the standard MPEG-4, at least one peripheral device representing a multimedia scene, at least one peripheral device commanding the application, an interface circuit including an input circuit receiving signals from a command means and an output circuit delivering a BIFS sequence, and means for constructing an output sequence as a function of signals provided by the peripheral input device.